



Division of Microbiology and Infectious Diseases

GENOMICS INITIATIVES

Microbial Sequencing Centers

The Microbial Sequencing Centers (MSCs) provide rapid and cost efficient resources for producing high quality genome sequences of pathogens and invertebrate vectors of infectious diseases. Genomes that can be sequenced through these resources include microorganisms considered agents of bioterrorism (NIAID Category A–C priority pathogens), clinical isolates, closely related species and invertebrate vectors of disease, and microorganisms responsible for emerging and re-emerging infectious diseases. Contracts for MSCs have been awarded to TIGR and MIT's Broad Institute.

More details about the MSCs may be found at: <http://www.niaid.nih.gov/research/resources/mscs/>. For further information please contact Dr. Maria Y. Giovanni at mgiovanni@niaid.nih.gov.

Biodefense Proteomics Research Centers

The primary goal of the seven Biodefense Proteomics Research Centers (PRCs) is to characterize the pathogen and/or host cell proteome, including the identification of proteins associated with innate and adaptive immune responses to infectious agents. PRC research is focused on the proteomic evaluation of NIAID Category A-C priority pathogens and microorganisms responsible for emerging and re-emerging infectious diseases. It is anticipated that the PRCs will discover targets for the next generation of vaccines, therapeutics, and diagnostics using existing or newly developed proteomics technologies.

More details about the PRCs may be found at: <http://www.niaid.nih.gov/dmid/genomes/prc/>. For further information please contact Dr. Maureen Beanan at mbeanan@niaid.nih.gov.

The Biodefense Proteomics Administrative Center

The Biodefense Proteomics Administrative Center consolidates PRC data and makes it available to the scientific community. More details about the Administrative Center may be found at:

<http://www.niaid.nih.gov/dmid/genomes/prc/administrative.htm>. For further information please contact Dr. Maureen Beanan at mbeanan@niaid.nih.gov or Dr. Malu Polanski at polanskim@niaid.nih.gov

Bioinformatics Resource Centers

The primary goal of the eight Bioinformatics Resource Centers (BRCs) is to provide scientists with genomic and related data for NIAID Category A-C priority pathogens, pathogens causing emerging and re-emerging infectious diseases, and invertebrate vectors of infectious diseases. Genomic sequence data will be integrated with gene expression and proteomics information, host/pathogen interactions and pathways data. Curators will provide functional annotation of genes, based on information from published resources and organism experts. The BRCs are staffed by multi-disciplinary teams, including organism experts, and will also provide training sessions and tutorials on their Centers' data and tools.

More details about the BRCs may be found at: <http://www.niaid.nih.gov/dmid/genomes/brc/>. For further information please contact Dr. Andrei Gabrielian at gabr@niaid.nih.gov.

Pathogen Functional Genomics Resource Center

The Pathogen Functional Genomics Resource Center (PFGRC) provides scientists with free-of-charge genomic resources and reagents, such as microarrays, protein expression clones, genotyping resources, and bioinformatics services. The NIAID-funded Center was established by The Institute for Genomic Research (TIGR) to provide the research community with a centralized resource to aid functional genomics research on human pathogens and invertebrate vectors of infectious diseases. More details about the PFGRC may be found at:

<http://www.niaid.nih.gov/dmid/genomes/pfgrc/>. For further information please contact Dr. Maria Y. Giovanni at mgiovanni@niaid.nih.gov

Structural Genomics Centers for Infectious Disease

The primary goal of the two Structural Genomics Centers is to experimentally characterize the three-dimensional atomic structure of targeted proteins using state-of-the art, high throughput structural biology technologies. Proteins will be chosen from pathogens in the NIAID Category A-C priority lists and organisms causing emerging and re-emerging diseases. The centers will accept proposals for pathogen targets by external investigators, NIH, and other Government Agencies.

More details about the Structural Genomics centers may be found at:

<http://www.niaid.nih.gov/research/resources/sg/>.

For further information please contact Valentina Di Francesco at vdifrancesco@niaid.nih.gov.